



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,141	01/16/2002	Tetsuo Yamaguchi	2870-0177P	3642
2292 7590 01/07/2008 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER CHEA, THORL	
			ART UNIT 1795	PAPER NUMBER
			NOTIFICATION DATE 01/07/2008	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/046,141

Applicant(s)

YAMAGUCHI, TETSUO

Examiner

Thorl Chea

Art Unit

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This office action is responsive to the communication on October 29, 2007; claims 1-6, 8-15 are pending; claim 7 has been canceled.
2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 29, 2007 has been entered.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6, 8-115 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al (US Patent No. 6,150,084) in view of either JP11-149136 (JP'136) or Adin et al (US Patent No. 6,054,260).

Ito et al discloses a photothermographic material containing non-photosensitive silver halide, photosensitive silver halide, reducing agent for silver ions and binder and the compound of formula (1) to (3) claimed in the present claimed invention, and the amount thereof is within 1×10^{-6} mol to 1 mol/mol of silver halide. Note to the compound of formula (1) to (3) in column 18 and the amount thereof in column 33, lines 22-25. The silver salt of a long chain aliphatic acids having 15 to 30 carbon atoms, especially 15 to 28 carbon atoms and the bisphenol reducing

Art Unit: 1795

agent are disclosed in column 4, lines 5-28 and column 14, lines 52-57 respectively. The silver salt of aliphatic acid having silver behenate content at least 95 mole % and bisphenol reducing agent are preferred.

The JP'136 discloses a heat-developable material containing non-photosensitive silver halide, photosensitive silver halide, reducing agent for silver ions and binder and the compound exemplified in the present application disclosure which is within the scope of formula (I) claimed in the present invention, and the amount thereof is from 1×10^{-6} mol to 1 mole/mol of silver halide. See the compound in column 1 (or Its English equivalent, US Patent No. 6,177,240, in columns 7-24; and in column 26, lines 37-40). This compound is within the scope of formula (I), which contains nitrogen containing heterocyclic compound, and the functional groups such as $-CO_2M$ which is within the scope of A-B of the formula (I). The compound provide photothermographic material high in Dmax and sensitivity, enhanced enough in contrast, small in photographic performance due to fluctuation of development conditions and superior in effect of restraining dependence on development condition.

Adin discloses a spectrally sensitize within the scope of formula (I) of the claimed invention, and the amount thereof is from 1×10^{-8} to 2×10^{-3} mol per mol of silver in the emulsion layer. The compound is capable of enhancing both intrinsic sensitivity and the spectrally sensitivity of the silver halide emulsion, and the activity of the compound can be easily varied with substituents to control their speed and fog effects in a manner appropriate to the particular silver halide in which they are used. Note to the compound in column 4, especially lines 26-38 and 55-65, and the amount thereof in column 60, lines 5-18.

Art Unit: 1795

Ito et al disclose a photothermographic material containing a compound of formula in (iv) of formula (1) to (3), the silver salt of an aliphatic acid having especially 15 to 28 carbon atoms and the bisphenol reducing agent, except the compound of formula (I). However, the compound of formula (I) has been known in JP'136 and Adin et al.

It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use the compound taught in JP'136 to provide the photothermographic material with high in Dmax and sensitivity, enhanced enough in contrast, small in photographic performance due to fluctuation of development conditions and superior in effect of restraining dependence on development condition, or the compound taught in Adin in the material taught in Ito enhance both intrinsic sensitivity and the spectrally sensitivity of the silver halide emulsion to provide the invention as claimed. The properties of the compound inherently meets the conditions (i) to (iii) presented in the claimed invention are considered as inherently associated with the compound of formula (1) to (3) of Ito et al since same compound would have similar properties. "product of identical composition can not have mutually exclusive properties." A chemical composition and its properties are inseparable. Therefore, if prior art teaches the identical chemical structure, the properties applicants disclosed and/or claims are necessarily present. *In re Spada*, 91 1 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990)."

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

Art Unit: 1795

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1-6, 7-15 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 6,764,816 (Ohzeki) in view of Ito et al (US Patent No. 6,150,084). The compound of group (iv) has been known as nucleating agent and taught in Ito in column 18, compounds (1), (2), (3). It would have been obvious to the worker of ordinary skill in the art at time the invention was made to use the nucleating agent taught in Ito to improve the image contrast of the material claimed in the '816 patent, and thereby provide an invention as claimed.

Response to Arguments

7. Applicant's arguments filed October 29, 2007 have been fully considered but they are not persuasive for the reason set forth in the rejection above and the response to the applicants' argument in the office action on May 2, 2006.

The applicants rely on the Declaration to obviate any prima facie case of obviousness set forth above, especially the Declaration on June 6, 2006.

The Declaration shows the use of the inventive samples in Table 1 of the Declaration shows inventive samples material containing the nucleating agent disclosed in Ito et al and the compound 95 of JP'136 (A-4, A-6, A-8, A-10); while the comparative samples (A-3, A-5, A-7, A-9) containing nucleating agent taught in Ito et al. The comparative sample A-3 contains only the compound 95 of JP'136 and the compound A-1 is the sample 3 of Ito et al '084. The

Art Unit: 1795

Declaration states that "samples A-3, A-5, A-7 and A-9" exhibit poor sensitivity and high fog after leaving, and the samples "A-4, A-6, A-8 and A-10" exhibit higher sensitivity and high fog after leaving. The applicants conclude that the results are unexpected due to the results tabulated in Table 2 of the Declaration.

The samples A-3 and A-4 wherein the difference is the compound 95 of JP '136. Both samples show same value of D_{min} , no significant differences in D_{max} and gamma. There is improvement of the value of sensitivity and the image stability after processing. However, the increase of the sensitivity or the image stability would have expected from the compound of JP'136 or Adin et al. Adin et al discloses the use of the claimed compound to increase the sensitivity of the silver halide grains and fog effect; and JP'136 discloses the use of the claimed compound to provide a heat-developable material high in D_{max} , enhanced enough in contrast, small in photographic performance due to fluctuation of development conditions and superior in effect of restraining dependence on development condition. See Adin et al in column 18, Table 4 and the abstract of JP'136 and the computer translation of the JP'136, [0168] which discloses that the nucleating agent provide a heat development material a very stable heat developing record. It has been known in the photothermographic art that the silver halide emulsions would cause fogging after heating. In the photothermographic art, the silver halide is used as photocatalyst. It contains latent image during exposure, but does not form a silver image. Therefore, it is unstable after heat processing, and thereby causing fogging. The use of the compound taught in either Adin et al or JP'136 would improve the fogging effect, and the results would have expected by the worker of ordinary skill in the art at the time the invention was made.

Art Unit: 1795

Supposedly, the results would have been found significant and found unexpected by the worker of ordinary skill in the art at the time the invention was made, the results shown in the specification disclosure are not commensurate with the scope of the compound of formula (I) claimed in the present claimed invention. The results is related to a use of a single compound 95 of the JP'136, while the scope of the claimed invention contains an indefinite compounds beyond the scope of the compound 95 of JP'196. The Declaration fails to provide a clear explanation as to why such results would apply to the whole scope of the compound of formula (I). The data is not reasonably commensurate in scope with the claims, which, as drafted, are broad in scope and cover mixtures of numerous untested compounds. Lindner, 457 F. 2d at 508, 173 USPQ at 358, and "applicants have the burden of emplaning the data in any declaration they proffer as evidence of non-obviousness." Ex parte Ishizaka, 24 USPQ2d 1621, 1624 (Bd. Pat. App. & Inter. 1992).".

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thorl Chea whose telephone number is (571) 272-1328. The examiner can normally be reached on 9 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (571)272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

Art Unit: 1795

applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tchea *tch*
2007-12-14



Thorl Chea
Primary Examiner
Art Unit 1795